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10/594,294

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50478-4500

8072

52044

7590

04/14/2010

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EXAMINER

PATEL, ASHOK

ART UNIT

PAPER NUMBER

2889

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/594,294 | <b>Applicant(s)</b><br>YAMAMOTO ET AL. |  |
|                              | <b>Examiner</b><br>Ashok Patel       | <b>Art Unit</b><br>2889                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>092706, 110606, 031609, 091409</u> . | 6) <input type="checkbox"/> Other: ____.  |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 7, 9, 13 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishitani et al (USPgPub 2004/0145316).

Nishitani et al disclose applicant's claimed gas discharge display panel (Figures 1-8) comprising:

a substrate (11),  
a dielectric layer (14), and  
a protective layer (15), the dielectric layer and the protective layer being formed in the stated order on a surface of the substrate,

wherein the protective layer has a first protective film (15A) and a second protective film (15B), the second protective film is formed on at least part of a surface of the first protective film, and the first protective film has a larger

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impurity content than the second protective film (paragraphs 0048-0071).

As to claim 2, Nishitani et al disclose the second protective film formed on an entirety of the surface of the first protective film.

As to claim 7, Nishitani et al disclose the impurity contained in the first protective film is at least one of Cl, F, Si, Ge, satisfying applicant's claimed limitations.

As to claims 9 and 10, Nishitani et al disclose each of the first protective film and the second protective contains at least one metal oxide material selected from the group consisting of MgO.

As to method claim 13, since Nishitani et al's disclosed includes all product features as recited in applicant's product claim 1, Nishitani et al's disclosed device is considered as formed by the method as recited in applicant's method claim 13. The artisan seeking the apparatus claim would necessarily perform the method as claimed.

As to claim 14, Nishitani et al disclose the the protective-layer forming step, at least one of the first protective film and the second protective film is formed using a sputtering method, as claimed by applicant (paragraph 0094).

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 6, 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishitani et al, as applied to claim 1.

As to claims 5 and 6, Nishitani et al do not disclose a film thickness of the second protective film in a range of 10nm to 1m inclusive, or 10nm to 100nm inclusive, as claimed by applicant, However, it has been held that where general conditions of the claim are discovered in the prior art, discovering the optimum or workable range involves only routine skill in the art. In re Aller, 105 USPQ 233.

As to claim 8, Nishitani et al do not disclose the impurity content of the first protective film in a range of 10ppm to 10000ppm inclusive, as claimed by applicant. However, it has been held that where general conditions of the claim are discovered in the prior art, discovering the optimum or workable

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range involves only routine skill in the art. In re Aller, 105 USPQ 233.

As to claim 12, Nishitani et al do not disclose the second protective film formed in one of island-like formation or in stripe formation, as claimed by applicant.

However, since applicant's disclosure fails to show such limitations solving any problems or yielding any unobvious or unexpected advantage that is not within the scope of the teachings applied. Therefore, such claimed limitations would be a matter of obvious design alternative.

5. Claims 3, 4 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 3 and 4, prior art of the record does not disclose applicant's claimed plasma discharge panel of entire claim 1, wherein the second protective film is formed so that, under each of display electrodes, at least part of the surface of the first protective film is exposed.

As to claim 11, prior art of the record does not disclose applicant's claimed plasma discharge panel of entire claim 1,

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wherein the first protective film contains BaO, and the second protective film contains MgO.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok Patel whose telephone number is 571-272-2456. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh-Toan Ton can be reached on 571-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ashok Patel/  
**Ashok Patel**  
**Primary Examiner**  
**Art Unit 2889**